New Capabilities in TRMM Precipitation Data Services at NASA GES DISC

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INTRODUCTION

The NASA Goddard Earth Sciences Data and Information Services Center (GES DISC) is home of global precipitation product archives, in particular, the Tropical Rainfall Measuring Mission (TRMM) products. TRMM is a joint U.S.-Japan satellite mission to monitor tropical and subtropical (40°S - 40°N) precipitation and to estimate its associated latent heating. The TRMM satellite provides the first detailed and comprehensive dataset on the four dimensional distribution of rainfall and latent heating over vastly undersampled tropical and subtropical oceans and continents. The TRMM satellite was launched on November 27, 1997. TRMM data products are archived at and distributed by GES DISC.

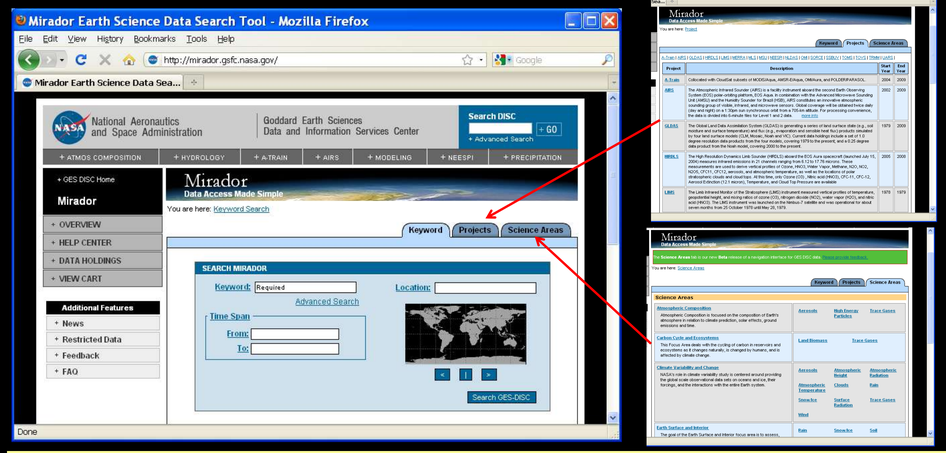
To facilitate data and information access and support precipitation research and applications, we have developed a Precipitation Data and Information Services Center (PDISC; URL: http://disc.gsfc.nasa.gov/precipitation). In addition to TRMM, PDISC provides current and past observational precipitation data. Users can access precipitation data archives consisting of both remote sensing and in-situ observations. Users can use these data products to conduct a wide variety of activities, including case studies, model evaluation, uncertainty investigation, etc. To support Earth science applications, PDISC provides users near-real-time precipitation products over the Internet. At PDISC, users can access tools and software. Documentation, FAQ and assistance are also available.

A number of new capabilities have been added recently: 1) Mirador (http://mirador.gsfc.nasa.gov/), a simplified interface for searching, browsing, and ordering Earth science data at NASA Goddard Earth Sciences Data and Information Services Center (GES DISC). Mirador is designed to be fast and easy to learn. Services include format conversion, spatial subsetting and more; 2) Several new instances have been added in the user friendly TRMM Online Visualization and Analysis System (TOVAS; URL: http://disc2.nascom.nasa.gov/Giovanni/tovas/); 3) NetCDF data download for the GIS community; 4) Data via OPeNDAP (http://disc.sci.gsfc.nasa.gov/services/opendap/). The OPeNDAP provides remote access to individual variables within datasets in a form usable by many tools, such as IDV, McIDAS-V, Panoply, Ferret and GrADS; 5) The Open Geospatial Consortium (OGC) Web Map Service (WMS) (http://disc.sci.gsfc.nasa.gov/services/wxs_ogc.shtml). The WMS is an interface that allows the use of data and enables clients to build customized maps with data coming from a different network.

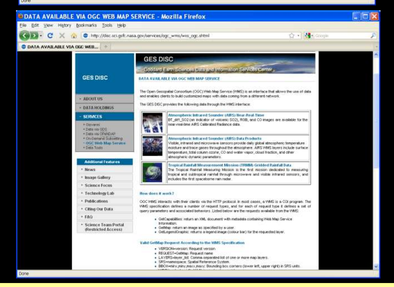
Mirador: http://mirador.gsfc.nasa.gov/
TOVAS: http://disc2.nascom.nasa.gov/Giovanni/tovas/
OPeNDAP: http://disc.sci.gsfc.nasa.gov/services/opendap/
WMS: http://disc.sci.gsfc.nasa.gov/services/ogc_wms/wxs_ogc.shtml
Other Tools: http://giovanni.gsfc.nasa.gov
TRMM Products: http://mirador.gsfc.nasa.gov/cgi-bin/mirador/presentNavigation.pl?tree=project&project=TRMM
TRMM project: http://trmm.gsfc.nasa.gov
Questions and comments: help-disc@listserv.gsfc.nasa.gov

Mirador – Data Access Made Simple

http://mirador.gsfc.nasa.gov/



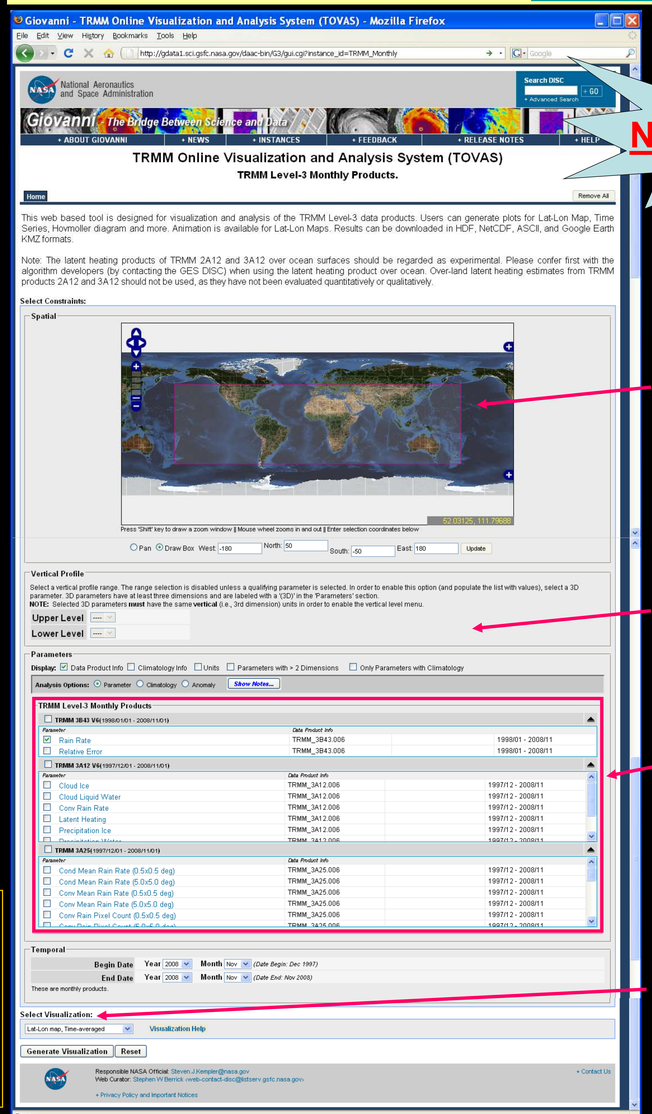
The OPeNDAP provides remote access to individual variables within datasets in a form usable by many tools, such as IDV, McIDAS-V, Panoply, Ferret and GrADS.



The WMS is an interface that allows the use of data and enables clients to build customized maps with data coming from a different network.

TRMM Online Visualization and Analysis System (TOVAS)

http://disc2.nascom.nasa.gov/Giovanni/tovas/



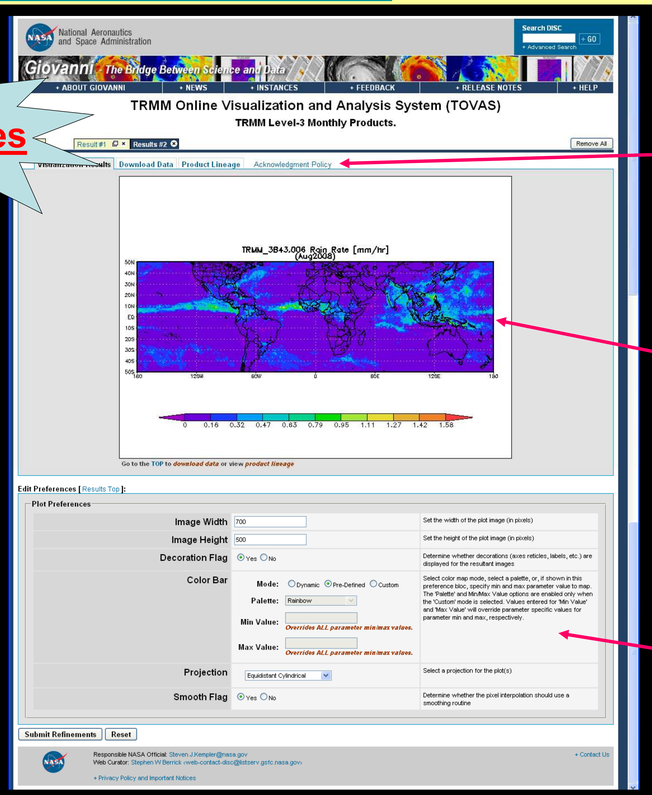
New Features

New high resolution world map

Parameters can be sorted

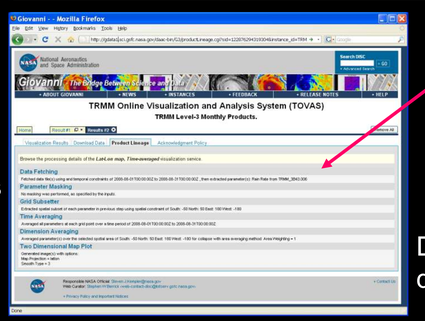
Combined monthly products

More functions are available



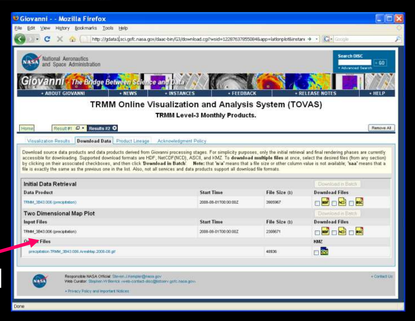
Graphic output

Fine tune graphic output, including adjusting the plot size, color bar palettes, min/max, projections, and more.



Data lineage

Data download



Output pages allow displaying results, downloading data (below), product lineage (below) and more.